A.2.21 SWMU 53

Description

As depicted in Figure A.2.17, SWMU 53 consists of an area of potential discharge from the FFTG drainage system to the northwest corner of Tank Basin 312 in the North Field. Training fires set in the FFTG were fueled with naphtha, which may have become entrained in the water used to extinguish the fires. This water subsequently was drained and discharged into Tank Basin 312, then to the OWSS and to the ETP for treatment. The area to the south and east of the concrete splash pad comprises the area of greatest potential discharge and has been established as the investigation area. The southeastern corner of Tank Basin 312 is underlain by the NF2 LNAPL Area.

As summarized on Table A.2.17, nine borings, six soil samples, one monitoring well groundwater sample, three piezometer groundwater samples, and three hydropunch samples have been used to characterize SWMU 53. Eight borings were installed during the 1st-Phase RFI. Three soil samples (one sample each of fill material from SB0159, SB0160 and SB0161) were collected for analysis of Skinner's List VOCs and SVOCs. The sample from SB0159 was also analyzed for TPH.

During the full RFI, one soil boring/monitoring well (S0763/MW-116) was installed in the southeastern corner of Tank Basin 312, but this area is underlain by the NF2 LNAPL Area, and therefore is not considered applicable for characterizing the potential impacts from FFTG discharges into the northwestern corner of Tank Basin 312.

Soils

Within the area of the FFTG potential discharge, three subsurface fill unit soil samples (SB0159SB, SB0160SB,and SB0161SB) were collected to characterize potential impacts within the northwestern portion of Tank Basin 312. All of these samples were collected from two to four feet bgs. PAHs were detected in excess of the applicable soil delineation criteria in two of the samples: SB0159SB contained benzo(a)pyrene (1.1 mg/kg), benzo(a)anthracene (3.5 mg/kg), and benzo(b)fluoranthene (1.8 mg/kg) and SB0161 had benzo(a)pyrene (0.99 mg/kg) and benzo(a)anthracene (1 mg/kg). No other COCs were detected in excess of the soil delineation criteria at these locations. The fill unit sample from SB0160 did not contain any COCs above the soil delineation criteria.

As discussed further in Section 6 of the RFI Report, lateral delineation of selected COCs has been completed on a site-wide basis for each Yard. The delineation of these COCs is depicted graphically on the figures provided in Section 6.

Groundwater

The groundwater within SWMU 53 has been impacted by the NF2 LNAPL Area, which has been delineated, as discussed in detail in Section 7 of the RFI Report. Further discussion of groundwater impacts can be found in Section 8 of the RFI Report.

Summary

Similar to site-wide observations, several SVOCs, including benzo(a)pyrene, are present in soils at concentrations above their respective soil delineation criteria at SWMU 53. The impacts are found within the subsurface fill layer, which also exhibits some evidence of stained soils. Therefore, institutional controls and/or engineered barriers for site-related impacted soils in the northwest portion of Tank Basin 312 will be considered in the CMS.

COCs have also been detected above the applicable groundwater delineation criteria in groundwater samples in the vicinity of the SWMU 53. Additionally, the southeastern portion of Tank Basin 312 is underlain by the NF2 LNAPL Area. As discussed in Section 7 of the RFI Report, the NF2 LNAPL Area has been fully delineated and will be included in the CMS for further evaluation. The site-wide groundwater component of the CMS will incorporate any potential impacts in the vicinity of SWMU 53.